



Department of Commerce

Safety & Buildings Division

201 West Washington Avenue

P.O. Box 2658

Madison, WI 53701-2658

Evaluation # 200222-O

Wisconsin Building Products Evaluation

Material

Amerex Fire Suppression System
(Dry and Wet)

Manufacturer

Amerex Corporation
7595 Gadsden Hwy.
Trussville, AL 35173

SCOPE OF EVALUATION

GENERAL: This report evaluates the use of KP (wet system) and IS (dry system), pre-engineered restaurant cooking appliance fire suppression systems manufactured by Amerex Corporation.

This review includes the cited **Comm** code requirements below in accordance with the current **Wisconsin Building and Heating, Ventilating and Air conditioning Code:**

Commercial Kitchens: The KP (wet system) and IS (dry system), pre-engineered restaurant cooking appliance fire suppression systems were evaluated in accordance with ss. **Comm 51.235(1), 51.235(2)(h), 51.235(3), and ss. Comm 64.67(6)(a), (b), (c), (d), and (e).**

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This review includes the cited **International Building Code (IBC)** requirements below in accordance with the **Wisconsin Amended IBC Code (effective 7/01/02):**

Commercial Kitchens: The KP (wet system) and IS (dry system), pre-engineered restaurant cooking appliance fire suppression systems were evaluated in accordance with ss. **IBC 904.11, 904.11.1, and 904.11.2.**

This review includes the cited **International Mechanical Code (IMC)** requirements below in accordance with the **Wisconsin Amended IMC Code (effective 7/01/02):**

Commercial Kitchens: The KP (wet system) and IS (dry system), pre-engineered restaurant cooking appliance fire suppression systems were evaluated in accordance with s. **IMC 509.1.**

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DESCRIPTION AND USE

General: Amerex KP restaurant fire suppression system is designed to protect commercial cooking operations. Amerex IS industrial dry chemical system is designed to protect industrial applications.

Commercial Cooking Operations:

Amerex Kitchen (KP) System Series: A pre-engineered system consisting of mechanical and electrical components to be installed by an Authorized Factory Trained and Certified Amerex KP Systems distributor. The system is composed of an agent cylinder/discharge valve charged with Amerex KP Liquid Agent and a Mechanical Release Module (MRM). The quantity of detectors, fusible links, nozzles, corner pulleys, pulley tees and manual pull stations will vary depending on kitchen design.

The system operates either automatically if actuated by a detector or manually if actuated by a manual pull station. Upon system operation, energy sources for the cooking appliances are required to be shut off immediately. Electrical shutdown devices or suitable gas valves are referenced in the manual. **Other equipment such as audible or visual signal devices can be added where required.**

The Amerex KP System suppresses fire in commercial cooking equipment by spraying KP liquid agent in a predetermined manner onto cooking appliances and into exhaust ducts, filters and plenum areas. The primary means of fire suppression is either by saponification of surface grease or by cooling the surface of oils and hot metal surfaces with fine droplets of agent, reducing the temperature of the oil and appliance below the auto-ignition point.

Industrial Operations:

Amerex Industrial System (IS) Series: A pre-engineered system consisting of mechanical and electrical components to be installed by an Authorized Factory Trained and Certified Amerex KP Systems distributor. The system is composed of an agent cylinder/discharge valve charged with Amerex ABC Dry Chemical and either a Mechanical Release Module (MRM) or an Electrical Release Module (ERM). The quantity of detectors, fusible links, nozzles, corner pulleys, pulley tees and manual pull stations will vary depending design.

The system operates either automatically if actuated by a detector or manually if actuated by a manual pull station. Upon system operation, energy sources for the appliances are shut off immediately. The MRM (ERM) incorporates mechanical and electrical provisions to facilitate the operation of auxiliary devices such as mechanical or electric gas valves and **remote audible or visual signal devices.**

TESTS AND RESULTS

The tests and results listed below cover both the current WI Building Code **Comm**, future **IBC** and **IMC** requirements.

Amerex Kitchen (KP) System Series: The system has been tested and listed by Underwriter's Laboratories, Inc., tested in accordance with UL Standard 300. The system shall be designed, installed and maintained in accordance with: Amerex Part No. 12385 "Design, Installation and Maintenance Manual", N.F.P.A. 96, N.F.P.A. 17A, local codes and ordinances and installed by Authorized Amerex KP Systems Distributor using factory trained personnel.

Amerex Industrial System (IS) Series: The system has been tested and listed by Underwriter's Laboratories, Inc., tested in accordance with UL Standard 1254 "Pre-Engineered Dry Chemical Extinguishing System Units". The system shall be designed, installed and maintained in accordance with: Amerex Part No. 15040 "Installation, Operation, Maintenance Manual", N.F.P.A. 17 (Extinguishing Systems), N.F.P.A. 72 (Detection and Alarm-Controlled Units), N.F.P.A. 70 (for electrical connections), local codes and ordinances and installed by Authorized Amerex Industrial Fire Suppression Systems Distributor using factory trained personnel.

LIMITATIONS OF APPROVAL

The limitations below cover both the current WI Building Code **Comm**, future **IBC** and **IMC** requirements.

Amerex Kitchen (KP) System Series:

Upon system discharge, the exhaust fans should be left on to aid in dispersal of the liquid suppressant, which results in cooling the plenum and duct. Any make-up or supply air should be automatically shut off along with all cooking appliances. **Some local Authorities Having Jurisdiction may require exhaust fans to be shut down by the fire suppression system.**

The Amerex KP System agent storage cylinders and cartridge shall not be installed in environments below 32° F or above 120° F (0° C to 49° C).

Amerex Industrial System (IS) Series: Temperature Limitations:

<u>Local Application, Overhead:</u>	32° F to 120° (0° C to 49° C)
<u>Local Application, Tankside:</u>	-20° F to 120° (-29° C to 49° C)
<u>Total Flood:</u>	-40° F to 120° (-40° C to 49° C)
<u>Vehicle Paint Spray Booths:</u>	-20° F to 120° (-29° C to 49° C)
<u>Open Front Paint Spray Booths:</u>	-20° F to 120° (-29° C to 49° C)

Amerex Kitchen (KP) System Series and **Amerex Industrial System (IS) Series** : Upon completion of system installation and final testing with the local Authority Having Jurisdiction, an Owner's Manual for the system shall be given to the owner or owner's agent. The Authorized Amerex Distributor shall give instructions on the use of the system.

Amerex Kitchen (KP) System Series and Amerex Industrial System (IS) Series suppression systems shall be installed in accordance with this evaluation and the manufacturer's installation instructions.

This approval will be valid through December 31, 2007, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The Wisconsin Building Product Evaluation number must be provided when plans that include this product are submitted for review.

DISCLAIMER

The department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement not specified in this document.

Revision Date:

Approval Date: May 21, 2002

By: _____
Lee E. Finley, Jr.
Product & Material Review
Integrated Services Bureau